UNIT TERMINAL OBJECTIVE

8-2 At the completion of this unit, the paramedic student will be able to integrate the principles of general incident management and multiple casualty incident (MCI) management techniques in order to function effectively at major incidents.

COGNITIVE OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

8-2.1 Explain the need for the incident management system (IMS)/ incident command system (ICS) in managing emergency medical services incidents. (C-1)
8-2.2 Define the term multiple casualty incident (MCI). (C-1)
8-2.3 Define the term disaster management. (C-1)
8-2.4 Describe essential elements of scene size-up when arriving at a potential MCI. (C-1)
8-2.5 Describe the role of the paramedics and EMS systems in planning for MCIs and disasters. (C-1)
8-2.6 Define the following types of incidents and how they affect medical management: (C-1)
- a. Open or uncontained incident
- b. Closed or contained incident

8-2.7 Describe the functional components of the incident management system in terms of the following: (C-1)
- a. Command
- b. Finance
- c. Logistics
- d. Operations
- e. Planning

8-2.8 Differentiate between singular and unified command and when each is most applicable. (C-3)
8-2.9 Describe the role of command. (C-1)
8-2.10 Describe the need for transfer of command and procedures for transferring it. (C-1)
8-2.11 Differentiate between command procedures used at small, medium and large scale medical incidents. (C-1)
8-2.12 Explain the local/ regional threshold for establishing command and implementation of the incident management system including threshold MCI declaration. (C-1)
8-2.13 List and describe the functions of the following groups and leaders in ICS as it pertains to EMS incidents: (C-1)
- a. Safety
- b. Logistics
- c. Rehabilitation (rehab)
- d. Staging
- e. Treatment
- f. Triage
- g. Transportation
- h. Extrication/ rescue
- I Disposition of deceased (morgue)
- j. Communications

8-2.14 Describe the methods and rationale for identifying specific functions and leaders for these functions in ICS. (C-1)
8-2.15 Describe the role of both command posts and emergency operations centers in MCI and disaster management. (C-1)
8-2.16 Describe the role of the physician at multiple casualty incidents. (C-1)
8-2.17 Define triage and describe the principles of triage. (C-1)
8-2.18 Describe the START (simple triage and rapid treatment) method of initial triage. (C-1)
8-2.19 Given a list of 20 patients with various multiple injuries, determine the appropriate triage priority with

90% accuracy. (C-3)

8-2.20 Given color coded tags and numerical priorities, assign the following terms to each: (C-1)
- a. Immediate
- b. Delayed
- c. Hold
- d. Deceased

8-2.21 Define primary and secondary triage. (C-1)
8-2.22 Describe when primary and secondary triage techniques should be implemented. (C-1)
8-2.23 Describe the need for and techniques used in tracking patients during multiple casualty incidents. (C-1)
8-2.24 Describe techniques used to allocate patients to hospitals and track them. (C-1)
8-2.25 Describe modifications of telecommunications procedures during multiple casualty incidents. (C-1)
8-2.26 List and describe the essential equipment to provide logistical support to MCI operations to include: (C-1)
- a. Airway, respiratory and hemorrhage control
- b. Burn management
- c. Patient packaging/ immobilization

8-2.27 List the physical and psychological signs of critical incident stress. (C-1)
8-2.28 Describe the role of critical incident stress management sessions in MCIs. (C-1)
8-2.29 Describe the role of the following exercises in preparation for MCIs: (C-1)
- a. Table top exercises
- b. Small and large MCI drills

AFFECTIVE OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

8-2.30 Understand the rationale for initiating incident command even at a small MCI event. (A-1)
8-2.31 Explain the rationale for having efficient and effective communications as part of an incident command/ management system. (A-1)
8-2.32 Explain why common problems of an MCI can have an adverse effect on an entire incident. (A-1)
8-2.33 Explain the organizational benefits for having standard operating procedures (SOPs) for using the incident management system or incident command system. (A-1)

PSYCHOMOTOR OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

8-2.34 Demonstrate the use of local/ regional triage tagging system used for primary and secondary triage. (P-1)
8-2.35 Given a simulated tabletop multiple casualty incident, with 5-10 patients: (P-1)
- a. Establish unified or singular command
- b. Conduct a scene assessment
- c. Determine scene objectives
- d. Formulate an incident plan
- e. Request appropriate resources
- f. Determine need for ICS expansion and groups
- g. Coordinate communications and groups leaders
- h. Coordinate outside agencies

8-2.36 Demonstrate effective initial scene assessment and update (progress) reports. (P-1)
8-2.37 Given a classroom simulation of a MCI with 5-10 patients, fulfill the role of triage group leader. (P-3)
8-2.38 Given a classroom simulation of a MCI with 5-10 patients, fulfill the role of treatment group leader. (P-3)
8-2.39 Given a classroom simulation of a MCI with 5-10 patients, fulfill the role of transportation group leader. (P-3)

DECLARATIVE

I. Introduction
- A. Need for incident command system
  1. Used at small "everyday" incidents
  2. Expands/ contracts as incident evolves
  3. Provides a clear system of command/ control
  4. Overcomes jurisdictions and geographic boundaries
- B. The FEMA incident management or command system
  1. National standard for incident management
  2. Used by public and by private sectors
  3. Flexible system
  4. Used for routine and large scale emergencies
- C. Incident command system elements
  1. Define span of control
  2. Define multiple casualty incident
  3. Define incident management system (IMS)/ incident command system (ICS)
  4. Define disaster management
  5. Uniform terminology
  6. Geographic and functional components
  7. Define an open or uncontained incident
  8. Define a closed or contained incident
  9. Major functional areas are C-FLOP
     a. C command
     b. F finance
     c. L logistics
     d. O operations
     e. P planning
  10. Discuss importance of communications
  11. Define triage
  12. Define transfer of command
  13. Define sectorization
  14. Discuss benefits of using standard operating procedures (SOPs) for ICS
  15. Identify laws or regulations that relate to the incident command system
- D. Need for preplanning
  1. Periodic review of plan and updating as needed
  2. Participation in local/ regional planning
- E. Drills and critiques
  1. Need to practice the plan
     a. Drills
     b. Table top exercises
  2. Critiques
     a. Drills and exercises
     b. Actual MCIs and incidents where IMS or ICS model is used

II. Basic elements of the incident command system (C-FLOP)
- A. Command
  1. Responsible for all functions unless delegated
     a. Oversees incident needs
     b. Establishes objectives/ priorities

c. Develops action plan
d. Coordinates with other agencies/ officials
e. Identifies appropriate command structure for operation size
f. Approves, orders and releases resources

2. Established at all incidents
   a. Identify appropriate command structure for size of incident
3. Singular command
   a. Single commander responsible for entire operation
   b. Works well for incidents with limited jurisdictions or responsibilities
   c. Ideal for short duration limited incidents
   d. Unrealistic in many localities
      (1) Overlapping responsibilities
      (2) Overlapping jurisdictions
      (3) Incident evolution
4. Unified command
   a. EMS-police-fire command personnel unify
   b. As incident evolves, right agency leads at the right time
   c. Identification and accessing appropriate agency(ies) or specialized organization, as needed, to complement command (e.g. health department, public works, building department, American Red Cross, Salvation Army, etc.)
   d. Stimulates cooperation
   e. Provides for balanced decision making
   f. Selection of sector leaders and functions
   g. “Span of control” (supervisor/ worker ratio)
      (1) 1 to 6 ratio
      (2) Maintaining unity/ command structure
   h. Determines need for public information officer and liaison with media

B. Finance
   1. Accounting and administration of the incident
   2. Staff support function
      a. Monitors costs, provides for careful accounting
      b. Seldom used on small scale incidents
      c. Essential as incident grows in magnitude and costs
      d. Not a component used in routine daily incidents
      e. Finance section responsible for
         (1) Time accounting
         (2) Procurement
         (3) Paying claims
         (4) Estimating costs

C. Logistics
   1. Procurement and stockpiling of equipment and supplies
   2. Staff support function
      a. Support the logistical needs of the incident
      b. Logistics appropriate to incident size/ duration
      c. Seldom used at routine daily incidents
      d. Logistics section responsible for
         (1) Supplies/ equipment
         (2) Facilities
         (3) Food
         (4) Communications support

(5) Medical support for workers

D. Operations
   1. Carries out the action functions and commands direction
   2. Line or actual operational responsibility
   3. Major functional area in all operations
      a. Carries out tactical objectives
      b. Directs the front end activities
      c. Participates in planning
      d. Modifies action plan
      e. Maintains discipline
      f. Accounts for personnel
   4. EMS operation areas fall under this section

E. Planning
   1. Staff function to provide past, present and future information about the incident
   2. Resource and situation status on a real time basis

III. Role and functions of command in managing major medical incidents

A. Establishing command
   1. Local threshold as to when command is established
   2. Low threshold encourages frequent practice (> 2 patients)
   3. Identify which group/ sector functions or major functional areas need to be implemented for the size and scope of incident
   4. Unification of EMS command with fire and police
   5. Tactical worksheet used to focus command on SOP
   6. Bib or other ID to easily identify command
   7. Assumption of a command position and arrival report

B. Scene assessment
   1. First unit on the scene should make a quick and rapid assessment of the situation
      a. Windshield assessment
      b. What is observed as you enter the area (incident scene)
   2. Precise and complete assessment should be done as soon as safety and time permit
      a. Type of incident and potential duration
      b. Entrapment or special rescue resources needed
      c. Number of patients in each triage category
      d. Additional resources needed
   3. Continually updated scene assessment

C. Communications
   1. Command established over radio with communication center/ emergency operations center (EOC)
   2. Radio traffic can be very distracting
   3. In larger incidents communications aide is used

D. Obtaining resources
   1. Additional units requested according to the situation
   2. Communications center should have written SOP on mutual aid
   3. Assignment of units consistent with the situation
   4. Additional support services requested as needed for victims, for food, shelter and clothing

E. Strategic deployment of resources
   1. Command issues instructions as to deployment
   2. Personnel stay with vehicle until given instructions

3. Staging slows resource deployment and premature commitment
4. Staging techniques
    a. Lining vehicles up at scene to facilitate egress
    b. Staging off of the limited access highway
    c. Formal staging area with staging officer assigned
5. Resources deployed more effectively

F. Strategic development of resources
1. "Tool box" theory
    a. Identification of resources ("tools") specific to an incident, utilizing only needed resources
    b. Issue instruction for deployment of resources

G. Transferring command
1. Procedures established for transferring command
2. Command remains in that position until relieved according to SOP
3. Limitation of transferring command

H. Terminating command
1. Procedures established for de-escalation and relief of units
2. Procedures for terminating command and the ICS structure

I. Command procedures at various size events
1. Small
2. Medium
3. Large

J. Common problems at a multiple casualty incident
1. Failure to adequately provide widespread notification of the event
2. Lack of rapid “initial” stabilization of all patients
3. Failure to move, collect and to organize patients rapidly at a treatment area
4. Failure to provide proper triage
5. Overly time consuming care employed
6. Premature transportation of patients
7. Improper use of personnel in field
8. Lack of proper distribution of patients to medical facilities
9. Lack of recognizable EMS command in the field
10. Lack of proper preplanning and lack of adequate training of all personnel
    [Alex M. Butman, “Responding to the MCI: A Guide for EMS Personnel”, © 1982]

IV. Group or sector functions

A. Safety officer
1. Staff role to monitor safety of workers at incident
2. Authority to stop unsafe procedures or institute safety procedures
3. Necessary at large scale incidents

B. Logistics
1. Provides essential equipment and medical supplies
2. Generally established and pre-positioned during the pre-MCI/ planning phase
3. Supports the operational needs of the incident

C. Rehabilitation
1. Locates and sets up the rehabilitation area
2. Rehabilitation area set up
    a. In safe area with thermal control
    b. Away from exhaust fumes and crowds
3. Monitors personnel and assures proper rest and hydration

4. Work with logistics to assure proper hydration and personnel monitoring supplies

D. Staging
   1. Locates and sets up sufficient area to stage equipment/ personnel
      a. Lining vehicles up to facilitate egress
   2. Formal staging area with staging officer assigned
   3. Assures apparatus is parked to allow egress when deployed
   4. Confers with command about additional resources needed
   5. Releases resources for deployment when ordered by command
   6. Ensures personnel stay with vehicle until deployed
   7. Supervises personnel within sector
   8. Tracks unit arrival and deployment from staging
   9. Prevents premature commitment of resources

E. Treatment
   1. Locates and sets up the treatment area according to the situation
   2. Generally away from immediate action area
   3. Provides for treatment areas for priority 1,2,3 patients
   4. Provides for secondary triage of patients as they arrive in treatment
   5. Assures patients receive adequate care in each sub-area
   6. Communicates/ coordinates with command, triage and transportation
   7. Moves patients to transportation appropriately
   8. Supervises personnel within the group

F. Triage
   1. Works at the incident or action site
   2. Assures initial primary triage is conducted to minimize re-triage
   3. Determines site treatment needs and assures initial triage/ treatment
   4. Organizes resources to deliver patients to the treatment area
   5. Responsible for supervising safety and treatment of entrapped patients

G. Transportation
   1. Establishes ambulance staging and landing zones if necessary
   2. Determines availability of receiving facilities and treatment capabilities
   3. Coordinates transportation and distribution of patients to appropriate receiving facilities
   4. Tracks patients leaving the site and maintains tracking log with
      a. Patient ID
      b. Unit transporting
      c. Destination facility

H. Extrication/ rescue
   1. Determines type of equipment and resources needed
   2. Identifies the need for specialized equipment and personnel with unique expertise
   3. Assures special safety equipment is available to all personnel (e.g. SCBA, protective clothing, etc.)
   4. Supervises personnel within group
   5. Ensures that support materials (e.g. gasoline, electricity, compressed air, etc.) for extrication equipment and materials are readily available
   6. Works with treatment personnel with extended extrication or special rescue situations
   7. Coordinates with safety officer, staging, and triage

I. Disposition of deceased
   1. Works with medical examiner, coroner, law enforcement and other appropriate agencies to coordinate disposition of deceased (attempt to leave deceased victims in location found, if possible, until a decision and plan for disposition can be determined)
   2. Assists in establishing an appropriate and secure area for a morgue, if needed

3. Monitors personnel for signs of stress

J. Communications
   1. Modification of communications techniques
      a. Calm communications (helps sets an orderly tone)
      b. Avoid use of radio codes/ signals
      c. Plain English and terminology is used
      d. Need for a common radio channel between command, sectors (groups), divisions
      e. Radio traffic should be minimized
      f. Face-to-face communication is encouraged to limit radio traffic
   2. Importance of communications at an MCI
   3. Communication requirements of command post and emergency operations center

V. On-scene physicians in multiple casualty incident management
   A. Triage function
      1. Increased ability to make difficult triage decisions
      2. Use at treatment area to make secondary triage decisions
      3. Emergency surgery to facilitate extrication
   B. Treatment capabilities
      1. On-scene ability to perform specialized invasive procedures
      2. More accurate assessment and direction of specific treatments
   C. Medical direction
      1. On-scene medical direction of paramedics

VI. Principles and techniques of triage
   A. Primary versus secondary triage
      1. Primary triage used at site to rapidly categorize patients condition for treatment
         a. Document location of patient and transport needs
         b. Triage tape or labels used
         c. Focus on speed to sort patients quickly
      2. Secondary triage used at treatment area
         a. Retriage of patients
         b. Usually accomplished at the treatment area
         c. Paper tags usually used
         d. Not always necessary especially at small incidents
   B. START technique of primary triage
      1. Developed at Hoag Memorial Hospital, Newport Beach, CA
      2. Stands for “simple triage and rapid treatment”
      3. Rapidly allows sorting of patients
      4. Accurate with practice
      5. Focuses on
         a. Ability to walk
         b. Respiratory effort
         c. Pulses/ perfusion
         d. Neurologic status
   C. START technique
      1. Walking wounded verbally directed to a designated location
      2. Initial triage effort is directed to non-walking patients
      3. Only treatment effort directed to correction of airway and severe bleeding
      4. Respiratory effort assessed

a. No respirations Priority-0 (P-0)
b. Above 30 Priority-1 (P-1)
c. Below 30 Go to next assessment

5. Perfusion assessed
   a. Absence of radial pulse Priority-1 (P-1)
   b. Radial pulse Go to next assessment
6. Neurologic assessed
   a. Unresponsive Priority-1 (P-1)
   b. Altered LOC Priority-2 (P-2)
   c. Alert Priority-3 (P-3)
7. Walking wounded need to be carefully triaged

D. Triage tagging/ labeling
   1. International agreement on color coding and priorities
      a. Immediate Red Priority-1 (P-1)
      b. Delayed Yellow Priority-2 (P-2)
      c. Hold Green Priority-3 (P-3)
      d. Deceased Black Priority-0 (P-0)
   2. Many variations of tags, tape and labels available
   3. Purpose of tagging
      a. Identify the priority of the patient
      b. Prevent re-triage of the same patient
      c. Serve as a tracking system during treatment/ transport
   4. Tags/ labels should be
      a. Easy to use
      b. Rapidly identify priority
      c. Allow for easy tracking
      d. Allow for some documentation
      e. Prevent patients from re-triaging themselves
   5. Should be used routinely so their use becomes familiar

E. Tracking systems for patients
   1. Destination log must be maintained by the transportation officer
   2. Log and tagging system must be integrated in order to track patients
   3. Either name or triage label ID# should be used
   4. Tracking log is similar to a shipping manifest with
      a. Patient identification
      b. Unit transporting
      c. Priority
      d. Destination

F. Transportation of patients
   1. Method of transportation driven by triage priority and situation
   2. Ambulance (s) are the typical method of transportation
   3. Buses should be considered for transporting large numbers of P-3s
   4. Air ambulances are often used for transport of critical patients

VII. Critical incident stress and MCIs
   A. Critical incident stress in personnel exposed to major events
   B. Critical incident stress debriefing should be part of post-incident SOP
   C. Access to defusing during the MCI
   D. Role of debriefing for an MCI
   E. Access to debriefing